1. SECURITY AND GEOPOLITICS

DETERRING RUSSIA IN THE BALTICS TO ALLOW US POWER PROJECTION IN THE PACIFIC

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The balance of power in the world is fluctuating as the US is facing new competitors as the People's Republic of China being as rising power. So, if tensions between the US and China or another near-peer will grow, the US would need to dedicate significant resources to the face new threat. Such a shift of power could affect the balance of power in other regions of the world and it could even trigger Russian opportunism in its former Soviet satellites. There could be a risk that NATO's current military structure in the Baltic States leaves its Eastern flank exposed to potential risks. The paper argues that additional initiatives such as easing the flow of Allied forces across borders, the establishment of NATO anti-access/area denial (A2AD) measures and efforts towards political cohesion need to be added and done so in a manner to gain maximum benefits from their combined effects.

KEY WORDS

Russian Federation, US power projection, Baltic Region, deterrence

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Introduction

Russia is predictable. According to Estonian Chief of Defence Lieutenant General RihoTerras (2016), "Every time Putin gets an opportunity, he uses it." The fall of the Soviet Union in 1991 left the world in a unipolar state as the United States became the world's sole superpower. The US uses that status today to promote and maintain democratic values across the world. However, the balance of power is changing in the world and the US is slowly losing its relative advantage. "Near-peers"

have entered onto the world stage and the People's Republic of China is leading in its rise as a world power. Should any number of points of tension between the US and China or another near-peer boil over into violent conflict, the US would need to dedicate significant resources to the fight. Such a military conflict between the US and China could affect the balance of power in other regions of the world. Of significant concern, it could trigger Russian opportunism in its former Soviet satellites.



With the US focused on a Chinese conflict. NATO would find itself without the full complement of US resources it has been supported with in recent years. NATO's current military structure in the Baltic States leaves its Eastern flank exposed to such potential opportunism and, as previously observed, Putin does not miss opportunities. The key to success is to deny Moscow a quick fait accompli in any part of NATO through convincing deterrence (Clark et al., 2016). NATO and individual Alliance member nations have already begun several initiatives to reduce the probability of Russian aggression including the formation of forwarddeployed rapid response forces, logistics innovations and military budget increases. However, this essay argues that additional initiatives such as easing the flow of Allied forces across borders, the establishment of NATO anti-access/area denial (A2AD) measures and efforts towards political cohesion need to be added and done so in a manner to gain maximum benefits from their combined effects. By building upon recently gained momentum through additional deterrence initiatives. NATO can create a credible deterrent to Russian opportunism even when limited in US support, providing stronger security in Europe and giving the US more flexibility in meeting its global interests. This essay examines what a Sino-American war would likely entail, the modern Russian approach to war and how NATO can better deter Russia in the areas of time as well as geographic and political space.

Sino-American War

While producing assessments on the probability of a conflict between the US and a near-peer like China inevitably results in predictions subject to endless debate, evidence shows that such a situation is far from dismissible. Senese and Vasquez

developed a risk barometer, which showed that the Russia-Georgia conflict of 2008 was a situation ready to ignite (Maness and Valeriano, 2012). It also gave an accurate assessment of a likely Russia-Ukraine conflict within two years of that conflict beginning. The model assesses the likelihood, within five years, of countries entering into violent conflict with each other. Maness and Valeriano (2012) further developed the risk barometer, assessing how territorial disputes, alliances, arms races, rivalry and the role of hardliners between nations affect the likelihood of those nations going to war with each other. A score of zero indicates a low likelihood of conflict while a five gives the highest likelihood. Where the Georgia-Russia conflict scored a four and the Russia-Ukraine conflict scored a three by the time conflict broke out, an assessment of China and the US produces either a four or five, depending on the assessment of each factor. Additionally, if either Japan or Taiwan are assessed against China, the resultant score is also high at a four or five and the US has security agreements with both nations. Despite these high-risk assessments. such potential Pacific conflicts have sat at such high scores for roughly seven decades. Therefore, the point to appreciate in this barometer is not that a Sino-US war is inevitable within five years but that the relationship constantly runs a high risk of conflict and small changes may incite violence. A phone call between the newly-elected US President to the President of Taiwan is an example of such a small change. The call created concern of a potential challenge to the One China policy and Chinese staterun People's Daily accused the US President of "playing with fire with his Taiwan game," warning that if the policy is challenged, "Beijing will have no choice but to take off the gloves" (Jacquette, 2017).



Despite difficulties in predicting the size and scope of a theoretical Sino-American conflict, it is clear that the situation in Europe will affect the situation in Asia and vice versa. The RAND Corporation assesses that, regardless of the size and scope of the conflict, the conflict would remain regional and limited to conventional weapons with particular focus in the air, sea, space and cyber domains (Grompet et al. 2016). Despite this assessment, both nations would surely prepare their nuclear forces as each is threatened by the other's nuclear capabilities. The conflict would therefore not only draw US bombers into the Pacific to cover conventional air requirements in the vast Pacific area of operations but also create a nuclear bomber requirement in the Continental US. This bomber demand is representative of a larger situation requiring US strategic air and naval resources to flow into the Pacific or generate in the US for world-wide nuclear commitments. creating a challenge for the US to focus on the conflict while also balancing military capacity in the rest of the world. With US forces currently assessed by the Heritage Foundation as unable to conduct major regional contingency operations in more than one region, the US must balance its forces as effectively as possible (Wood, 2016). The more military power the US is able to dedicate to the Sino-American fight, the greater its chances of success (Grompet et al, 2016). The ability of NATO's European Allies to defend Europe with US support limited mostly to those forces already assigned to Europe will directly affect US options to provide forces to the Pacific Theatre. Therefore, not only should NATO take measures to defend its European territory with limited US support, especially in naval and air capabilities, but also have an understanding with the US that in such a Sino-American conflict scenario. European NATO forces should remain predominately in-place to avoid causing a military capability gap in Europe. Should the US find itself in a NATO Article V situation against China, the use of Article V should be limited to benefits of diplomatic support and any use of European NATO capabilities must be rapidly transferable back to Europe if needed, such as space-based capabilities.

The Russian Approach

Russia creates the greatest challenge in balancing US military capabilities across the globe in this Sino-American conflict scenario. Although not all NATO members agree on the likelihood of a Russian offensive against the Alliance. Russia has provided ample evidence that it has interests in reasserting dominance over its prior Soviet holdings, to include the Baltic States (Gotkowska, 2016). Additionally, Russia has shown three times in the last decade that it relies on its military instrument to achieve its strategic aims (Mastriano, 2017). Russia's 2014 doctrine makes clear that Russia sees its former Soviet territory as a vital sphere of interest and it is dedicating large amounts of resources to the area's defence (Sinovets& Renz, 2015). An analysis by Sinovets and Renz (2015) concludes that 'the main theme of the doctrine is rivalry with the West." Russia turned doctrine into practice in both Georgia and the Ukraine. While these two states are not NATO members. NATO membership has not exempted former Soviet states from Russia's interest. Russian destabilization plans show a new Eastern European map incorporating Belarus, all three Baltic capitals and Estonia's two main islands into the Russian Federation (Potomac Foundation, 2016). Russia has identified Latvia's Latgalia region as an area ripe for exploitation, where it could support "uprisings" of Russian speakers



similar to its actions in Ukraine and, through large-scale intervention, create four "Rump States" out of the three current Baltic States (Potomac Foundation, 2016).

NATO has observed Russia's operations in Georgia, Ukraine and Syria to analyse how Russia conducts modern warfare and can use these observations to strengthen European defence. In the cases of Georgia and Ukraine, Russia demonstrated what has been described a "hybrid" tactic. combining multiple national capabilities to destabilize its intended area of operations. Russian conventional forces then moved into the areas using armour encirclement manoeuvres for a quick and low-cost victory, quickly backed by its nuclear umbrella to deter any counterattacks (Potomac Foundation, 2016). As the situation currently stands, NATO is not prepared to repel such an attack in the Baltic States. The timeline under the current defence structure from the start of hostilities to Russian forces arriving at Riga and Tallinn could be less than 60 hours, leaving NATO to defend encircled capitals rather than deterring or defending against an initial invasion force (Shlapak& Johnson, 2016).

Towards Stronger Deterrence

Russia's action in Eastern Ukraine, following its actions in Georgia and Crimea, crossed NATO's tolerance threshold in allowing its Eastern border to remain critically exposed to possible Russian opportunism. Following the NATO Wales Summit of 2014, the Alliance decided and began acting to remedy the situation. The intent is to create a real deterrent to any Russian aspirations of an offensive into the Baltics (NATO, 2014). If executed effectively, these moves could not only be the start of a genuine deterrent against Russian aggression in the current geopolitical situation, but also significantly

reduce the challenge the US faces balancing its forces in the theoretical Sino-American conflict. Additionally, establishing a deterrent posture playing to European NATO's strengths offers the Alliance a solution in which it is not left pursuing the financially prohibitive endeavour of attempting to fill potential one-for-one gaps in US strategic air and sea capabilities. The proper deterrent posture will create opportunities for NATO in both time and space, while denying the same to an opportunistic Russia seeking its established pattern of a quick, low-cost victory (Potomac, 2016). At the same time, a proper deterrent must clearly be just that - a deterrent. General Breedlove, NATO's Supreme Allied Commander Europe at the time of the 2014 Wales Summit, directed that NATO's deterrent actions must be "responsive but de-escalatory" (Gornec, 2014).

Creating Time

In the realm of time, the Alliance is taking measures to slow a Russian offensive by placing permanently rotating NATO troops and equipment in the Baltic region, thus strengthening European defence and indirectly creating a better situation for the US in the case of a conflict with China. The Wales Summit resulted in the decision to place four Very High-Readiness Joint Task Forces (VJTFs) as part of an Enhanced Forward Presence NATO Response Force into the three Baltic nations and Poland (NATO. 2014). The US, UK, Germany and Canada will lead these VJTFs as framework nations and create multinational task forces adding up to roughly five thousand combined troops organized into task forces each somewhere between a battalion and brigade in size (NATO Review Magazine, 2016). These forces are comparable to the Cold War's "Berlin Brigade" in that any attack on them by Russian forces would create a tripwire-effect



resulting in a NATO response (NATO Review Magazine, 2016). The number and size of the units fall far short of the RAND Corporation's (Shlapak& Johnson, 2016) suggested seven brigades as a credible match to expected Russian forces. However, regardless of the mismatch in force sizes between the VTJFs and Russian forces, by placing these task forces in forward positions within NATO, the Alliance improves its warning and reaction time, limits Russia's ability to avoid direct confrontation with NATO forces and raises Moscow's overall risk level in any attempted offensive.

Due to their limited numbers, VJTFs lack the mass required to stop a Russian invasion, driving a need for follow-on forces capable of rapidly moving to the East. The US military is already moving forward on initiatives to counter Russian aggression, which would also assist in lessening the logistics burden a conflict with China would create. The US Army in Europe has reversed the drawdown of its capabilities under Operation Atlantic Resolve and is initiating heel-to-toe rotations of trained forces into Poland, capable of immediate combat action (US Army Europe, 2016). These forces will include an Armoured Brigade Combat Team, essential for countering Russian armour, and a Combat Aviation Brigade able to operate in those vast areas of the Baltics prohibitive to land-based vehicles (Potomac, 2016). Additionally, the Army will forward-position nearly a division's worth of vehicles and equipment in Europe to reduce logistics timelines (US Army Europe. 2016). These rotational forces would still need additional support in the case of a Russian offensive. To enable the rapid flow of additional forces into the theatre, the US Air Force is pursuing stronger air base infrastructure in Eastern Europe and has initiated a "base in a box" or "Rapid-X" concept, pre-positioning equipment required

to operate out of European airfields in order to reduce unrealistic contingency plan requirements on the air bridge from the US to Europe (Harper, 2016). The pre-positioned kits are able to bring an airfield up to operational status, perform operations and then move to a new airfield as missions demand (Harper, 2016). Such a reduction on air bridge requirement becomes crucial in a scenario where the US is simultaneously fighting a war on a separate front in the Pacific.

These rapid deployment and reception, staging and onward movement initiatives mitigate some of NATO's timing dilemma in countering a Russian offensive but current policies of individual Alliance members create barriers to their movement across NATO borders. Cold War plans and agreements for quick movements of troops across borders have disappeared and leaders in NATO member countries have only recently discovered the magnitude of obstacles that current policies in each nation present (Braw, 2016). To properly support the aforementioned forces with timely, sufficient follow-on forces, NATO needs to begin making a proposed "Military Schengen Zone" a reality (Braw. 2016). The Commander of US Armies in Europe. Lieutenant General Hodges, observed in 2016 following major NATO exercises that NATO forces have nowhere near the freedom of movement enjoyed by the Russians behind their own border (Braw, 2016). By creating an environment conducive to fluid movement of forces within NATO's several borders, the Alliance can significantly decrease its reaction time in this already timeconstrained scenario.

Deterrence in Geographic Space

NATO is not only making significant movement in the realm of time but also in



space. Former NATO Supreme Allied Commander Europe, General Philip Breedlove, explained that the Alliance had grown comfortable with its Eastern structure, having attempted to partner with Russia for 20 years and drawing forces down to 75% of Cold War levels (Breedlove, 2015). In doing so, member nations allowed budgets to shrink and the US, for example, began a major drawdown in military forces from Europe, creating space opportunities for Russian forces. One area in the realm of space where NATO can make major improvements is in building its own Baltic A2AD measures. Both Russia and China are examples of nations employing highly effective A2AD systems to stifle attacks from potential aggressors, namely the US. Anti-access measures prevent militaries from basing forces nearby or getting into a theatre while area denial measures prevent operations in a protected area once it is able to access the theatre (Grynkewich, 2017). Russia's comprehensive A2AD system challenges attacks from air, land, sea and even space and cyber space. The system not only denies access to the Russian interior, but also has the potential to easily deny NATO use of its own airspace, waters and territory since its A2AD weapon ranges reach many kilometres into these NATO areas. The Baltic States offer no such challenge to a potential Russian foe, not even in the form of hosted NATO systems. An A2AD strategy provides NATO with a cost-effective and prompt means of deterring or countering Russian aggression. They are much cheaper to establish and maintain than power-projection systems, provide persistent capabilities and offer survivable offensive and defensive options (Kelly, Gompert& Long, 2016). Rather than continuing to exclusively focus on how NATO might defeat a challenging Russian A2AD system, the Alliance needs

to flip the tables on a potential Russian aggressor with an A2AD capability of its own. This concept was developed for use by the US and supporting allies by the RAND Corporation's Kelly, Gompert and Long (2016) and referred to as "Blue A2AD." Through Blue A2AD, NATO can pair offensive and defensive capabilities, especially on its periphery, to make any aggression against the Alliance an incredibly high-cost undertaking for the aggressor.

A key aspect of A2AD is setting up capable defences such as coastal and air defence systems. The Baltic Air Policing mission was a small but significant first step in Baltic defence. When speaking of the success to date of the Baltic Air Policing mission, Lieutenant General Terras (2016) commented that the next step is air defence and control of the Baltic Sea. With small budgets and available manning, the Baltic States would benefit most from an interoperable point-defence model, backed by additional NATO air defence capabilities capable of coordination and operations across borders. Political leadership from all three Baltic nations and Poland met in 2016 to discuss a future regional air defence system with hopes to achieve an operational capability between 2018 and 2019 (Jones, 2016). Lithuania has led in the realm of air defence, purchasing two Norwegian/National Advanced Surface-to-Air Missile System (NASAMS) batteries set for delivery in 2020 (Larrinaga, 2016). With Finland also operating NASAMS in its air defence forces, Latvia and Estonia would strengthen air defence in the entire Baltic region by honouring their common air defence system agreement and pursuing a NASAMS or NASAMS-compatible air defence capability. Likewise, Poland recently procured a land-based, mobile version of the fifth-generation naval strike missile or "NSM," offering the Baltic States another



opportunity for a regionally-common A2AD measure (Clevenger, 2015).

A2AD is not only about setting up weapons systems; it is also about using a nation's geography to its advantage. Here, NATO has another opportunity to advance legitimate deterrence in an area that bridges both time and space. With vast swamps and thick forests, the Baltic States are naturally challenging areas in which to move large land forces. Baltic lines of communication in the form of improved roads. railways bridges and others are relatively limited, allowing NATO to predict Russian axes of approach. Russian doctrine places particular emphasis on the use of parallel road-rail lines due to the Russian military's high use of railways, further refining expected routes (Potomac, 2016), NATO would be wise to look to South Korea for an example of serious terrain-denial measures. South Korea maintains denial measures refined over several decades, which show how small states with little to no strategic depth can create reaction time. Despite large differences in Korean and Baltic terrain, it is possible to create reaction time for defence forces through Baltic terrain denial measures. While the South Koreans have set up denial measures in the gaps of their mountainous terrain, the Baltic nations can focus on gaps in forests and swamps. The Potomac Foundation (2016) identified several geographic areas where individual Baltic nations and larger NATO could create effective terrain-denial. For instance, the Kura. Gauia and Nemunas Rivers (See Annex A) all create natural barriers with limited means for crossing. By denying Russia a means to easily cross the Kura River, for example, NATO would hinder use of Highway E77, Russia's most direct improved road from Pskov to Riga (Potomac, 2016). Creating time for response is critical as Russian doctrine emphasizes concentrating its forces for early victories before NATO is able to bring its strength in non-contact warfare to the region (Potomac, 2016). While such areas have been generally identified, detailed terrain analysis spanning the Baltics is still required.

Baltic terrain also gives NATO a picture of Russian axes of advance, allowing the Alliance to predict where aggressor forces will operate. In Lithuania, a natural forest belt backed by several lakes funnel transit from Belarus to Kaliningrad along the Suwalki Gap, a key route in a Russian offensive scenario, to the Lithuanian town of Marijampole (Potomac, 2016). In Poland, the Russians would need to secure the Bialystok Rail Junction in order to hold the Belarus border zone (Potomac, 2016). Natural forest and swamp barriers on all sides but its south protect Bialvstok, allowing NATO to anticipate where a Russian attack would focus but which also create a dilemma for NATO in reinforcing the area once hostilities have begun. The unprotected Western Estonian islands of Hiiumaa and Saaremaa are also key objectives for a potential Russian offensive. The Russians have a specific unit within a larger force tasked to cut off the Baltics built for this mission. consisting of a naval infantry brigade and two air defence regiments, not coincidentally named "Force Ezyel;" Ezyel being the Tsarist name for the island of Saaremaa. (Potomac, 2016). By capturing these two islands and extending its A2AD umbrella, Russia would possess the geography necessary to control sea lines of communication through the Gulf of Finland to St. Petersburg and completely cut the Baltics off from NATO support by air and sea (see Annex B). The nearby island of Gotland and the Lland Archipelago, belonging to Sweden and Finland respectively, make up additional geography the Russians could use to cut the area off from NATO support.



To indicate their recognition of this situation, the Swedes moved precautionary troops onto Gotland in 2016 (NATO Review Magazine, 2016). By defending Estonia's islands now and supporting its Partnership for Peace members Sweden and Finland in the defence of their islands, NATO can position itself to keep air and sea routes open to the Baltics while simultaneously denying Russia air and sea power-projection from Kaliningrad and St. Petersburg, NATO must act on defensive measures not limited to these Baltic areas. For instance, it is vitally important for NATO to maintain and strengthen ties with Ukraine as Kiev takes large steps to bring its forces up to NATO standards by 2020 as a NATO Partner for Peace (Postrybailo, 2017). The Baltic border with Russia is already dauntingly long but taking for granted the Ukrainian border. which shapes the region's geo-political map could prove devastating if Russian troops gain freedom of movement to the South. While many military experts call for various levels of greater land forces in the Baltics, the key is to use measures such as those described here to force Russian aggressors into contact with NATO forces. By building defensive capabilities, training and positioning its troops in the limited paths made available to Russian forces. NATO can convince Russia that its tactic of bypassing Allied forces to achieve a fait accompli in the Baltics has a low probability of success (Clark et al, 2016).

Deterrence in Political Space

In the area of political space, NATO must take measures to eliminate seams Moscow would exploit. One timely example of contention amongst NATO members is that of finance. The Alliance recommends and nations have agreed to dedicate at least 2% of their Gross Domestic Products on

defence and 20% of that budget on defence equipment recapitalization (NATO, 2014). For many years now, less than a handful of NATO's 28 members have actually achieved this target. With renewed incentive for defence following Russia's invasions of its neighbours, NATO codified a plan at the 2014 Wales Summit wherein all members will meet the 2% level within the next 8 years (NATO, 2014) Those countries not meeting NATO's 2% guideline not only withhold funds that enable NATO's missions, they also create tension amongst member states. This tension is apparent in the differing interpretations of the current security situation as some Allies show a tendency to make the threat fit their defence posture instead of spending according to the actual threat (Clark et al... 2016). Such an approach has inspired criticism that rather than producing a strong, unified response to Russia, the Wales Summit produced a "cosmetic patchwork of loosely connected activities" (Kreitmayr, 2017). Additionally, while the Wales Summit plan does move the Alliance toward a more cohesive state by setting a deadline to meet financial goals and obligations, the move is a little late for the newly elected US President. During his campaign, Mr. Trump struck a chord with US citizens in calling out, as previous US Presidents and Secretaries of Defense have, those members of NATO who have not been meeting NATO's 2% target, furthering perceptions of security "free riders" within the Alliance (Collinson, 2016). Mending this wound is vital for NATO's continued solvency. NATO has great potential in the area of strategic communications to publicize successes in this area. As Alliance members begin reaching their budget commitments, NATO needs to publicly recognize them and provide further encouragement to continue meeting those targets. The increase in money is not an end



goal in itself. Nations can use those funds to increase their national military capacity within a common NATO strategy, regaining capabilities lost during NATO's warming towards Russia over the last two decades and pursuing such deterrent measures as those recommended by this essay (Clark et al, 2016). Such measures cannot fall into long-term political debate but must rather be addressed with a common sense of urgency (Kreitmayr, 2017).

Conclusion

For the US, a credible deterrent in Europe is essential for success in a military conflict against China. In such a scenario, the US would need to make as many of its national forces, especially its naval, air, space and cyberspace forces available to ensure the best chance of achieving its objectives. The ability of NATO's European Allies to defend themselves against Russian opportunism will play a large role in how the US determines how to balance its forces in the world. NATO has taken steps to strengthen its Eastern border including the implementation of rapid reaction forces, pre-positioning troops, easing logistic chains and increasing funding. However, the Alliance has significant opportunities to increase its defence and legitimize its Russian deterrence by making internal borders open to NATO force movements, creating its own A2AD system, and strengthening political cohesion. By making these bold moves now, NATO can not only protect itself in the current geopolitical situation but also shape the battlespace to create a balanced global security posture.

References

Braw, E., 2016, A Schengen Zone for NATO: Why the Alliance Needs Open Borders for Troops. Foreign Affairs. [Online] Available from: https://www.foreignaffairs.com/articles/russian-federation/2016-06-06/schengen-zone-nato (accessed 20.01.2017).

Breedlove, P., 2015, Department of Defense Press Briefing by General Breedlove in the Pentagon Briefing Room. [Online] April 30th 2016. Press Operations. Available from: https://www.defense.gov/News/Transcripts/Transcript-View/Article/607046/department-of-defense-press-briefing-by-general-breedlove-in-the-pentagon-brief (accessed 21.01.2017).

Brendan, M., 2016, Russia Finishes Delivery of S-300 Missile Systems to Iran. [Online] Available from: https://www.defensetech.org/2016/10/14/russia-finishes-delivery-s-300-missile-systems-iran/ (accessed 31.03.2017).

Clark, W., Luik, J., Ramms, E., & Shirreff, R., 2016, Closing NATO's Baltic Gap. International Centre For Defence and Security. Tallinn.

Clevenger, A., 2015, Raytheon, Kongsberg Join Forces on NSM. Defense News. [Online] Available from: http://www.defensenews.com/story/defense/naval/navy/2015/04/09/raytheon-and-kongsberg-join-forces-on-nsm/25518755/ (accessed 20.03.2017).

Collinson, S., 2016, 5 Candidates Make Closing Arguments on CNN Ahead of Western Tuesday. CNN. [Online] 23rd March. Available from: http://edition.cnn. com/2016/03/21/politics/elections-2016-final-five-highlights/?iid=EL (accessed 20.01.2017).

Cooper, J., 2016, If War Comes Tomorrow: How Russia Prepares for Possible Armed Aggression. Royal United Services Institute for Defence and Security Studies. Whitehall Report, p. 4-16.

Federation of American Scientists, 2000, M1 Abrams Main Battle Tank. [Online] Avail-



- able from: https://fas.org/man/dod-101/sys/land/m1.htm (accessed 20.01.2017).
- Global Security, 2016, 3M-54 Klub/Caliber. [Online] Available from http://www.globalsecurity.org/military/world/russia/club.htm (accessed 31.03.2017).
- Gompert, D., Cevallos, A. & Garafola, C., 2016, War with China: Thinking Through the Unthinkable. RAND Corporation. p. 9-93.
- Gorenc, F., 2014, Interview with General Frank Gorenc. Air Force Times. 28th August.
- Gotkowska, J., 2016, High on Reassurance, Low on Deterrence – Germany's Stance on Strengthening NATO's Eastern Flank. OSW Centre for Eastern Studies. Commentary 217.
- Grynkewich, A., 2017, The Future of Air Superiority, Part III: Defeating A2/AD. [Online] Available from: https://war-ontherocks.com/2017/01/the-future-of-air-superiority-part-iii-defeating-a2ad/ (accessed 15.01.2017).
- Harper, J., 2016, U.S. Air Force Preparing for 'High Volume' Operations in Europe. National Defense. [Online] 5th April. Available from: http://www.nationaldefensemagazine.org/blog/lists/posts/post.aspx?ID=2146 (accessed. 05.12.2016).
- Jacquette, R., 2017, As Inauguration Nears, Trump Keeps World Leaders on Edge. The New York Times [Online] 16th January. Available from: https://www.nytimes.com/2017/01/16/world/donald-trumpworld-leaders.html?_r=0 (accessed 20.01.2017).
- Jones, S., 2016, Poland and Baltic States Explore Anti-Aircraft Shield. Financial Times. [Online] 12th June. Available from: https://www.ft.com/content/7329eeb6-3091-11e6-bda0-04585c31b153 (accessed 28.01.2017).
- Kelly, T., Gompert, D. & Long, D., 2016, Smarter Power Stronger Partners, Vol. 1: Exploiting US Advantages to Prevent Aggression. RAND Corporation, p. 17.
- Kreitmayr, M. 2017, Back to Bussiness: The North Atlantic Treaty Organization

- (NATO) and its Concept of Collective Defense. Project 1721. US Army War College, p. 65.
- Larrinaga, N., 2016, Lithuania and Norway Agree NASAMS Deal. IHS Jane's 360. [Online] 25th October. Available from: http://www.janes.com/article/64881/ lithuania-and-norway-agree-nasamsdeal (accessed 21.01.2017].
- Maness, R. & Valeriano, B., 2012, Russia and the Near Abroad: Applying a Risk Barometer for War. The Journal of Slavic Military Studies. [Online] 25 (2). p. 125-148. Available from http://www.tandfonline.com/doi/abs/10.1080/13518046.201 2.676453 (accessed 27.01.2017).
- Mastriano, D., 2017, Putin's Complex Application of Russian Strategic Landpower. Project 1721. US Army War College, p. 3.
- NATO Review Magazine, 2016, Securing the Nordic-Baltic Region. [Online] Available from http://www.nato.int/docu/Review/2016/Also-in-2016/security-baltic-defense-nato/EN/index.htm (accessed 27.01.2017).
- North Atlantic Treaty Organization. North Atlantic Council, 2014, Wales Summit Declaration. Brussels.
- Postrybailo, V., 2017, The Conflict in Ukraine: It's Implications on Armed Forces Development. Project 1721. US Army War College, p. 27.
- Potomac Foundation, 2016, Russian Operational Planning for the Western Strategic Direction of the European TVD. Vienna, Virginia, USA.
- Shlapak, D. & Johnson, M., 2016, Reinforcing Deterrence on NATO's Eastern Flank. RAND Corporation, p. 1-17.
- Sinovets, P. & Renz, B., 2015, Russia's 2014 Military Doctrine and Beyond: Threat Perceptions, Capabilities and Ambitions. NATO Defence College, Rome. No 117.
- Terras, R., 2016, Deterring Through Cooperation in the Wider Baltic. [Lecture Notes] International Security Module. Baltic Defence College, Baltic Way Room, 2nd December.



Smith-Spark, L. & Shubert, A., 2017, Poland welcomes thousands of troops in NATO show of force. CNN. [Online] 14th January. Available from: http://edition.cnn.com/2017/01/14/europe/poland-us-troops-nato-welcome/ (accessed 18.01.2017).

US Army Europe, 2016, US Army Europe to Increase Presence Across Eastern Europe. 4th November 2016. [Online] Avaialble from – https://www.army.mil/article/177819/us_army_europe_ to_increase_presence_across_eastern_europe (accessed 15.12.2016).

Wood, D. (ed.), 2016, 2016 Index of US Military Strength: Assessing America's Ability to Provide for the Common Defense. The Heritage Foundation: Davis Institute for National Security and Foreign Policy.

Annex A: Baltic Terrain Denial Opportunities

The presented display shows significant geographic features and areas in the Baltic States. The geographic features displayed are limited to those mentioned in the attached essay. These are only some of

many areas to include swamps and forests where NATO can work with the Baltic States to create denial measures against would-be Russian aggressors, shaping Russian movements to NATO's advantage.

- 1. Highway E77
- 2. Kura River
- 3. Gauia River
- 4. Nemunas River
- 5. Suwalki Gap
- 6. Bialystok (Rail Junction)



Background Map: Google Maps.



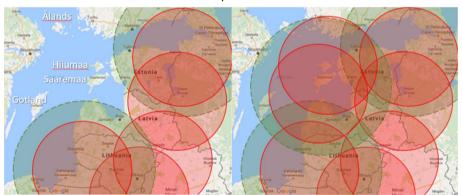
Annex B: Russian Current and Potential A2AD

Russia's A2AD systems currently challenge NATO's access not only to Russian but also NATO territory. The displays shown here are based upon work the same author completed in the Allied Joint Operations Module of the Joint Command and General Staff Course. The first display shows the notional coverage that Russian systems could have assuming current borders, including forces deployed to Belarus. The display shows the coverage that only five of Russia's widely-produced S-300 surfaceto-air missile systems (SAM) and two Klub 3M-54E1 anti-ship missile systems (ASM) provide. The S-300 has a 200 kilometre range (McGarry, 2016). The Klub ASM has a range of 300 kilometres (Global Security, 2016). The reality is that Russia operates far

more systems than the seven shown here in layers of defence consisting of many weapons system types. Furthermore, some systems, such as Russia's S-400 SAM provide even greater defence range.

Should Russia capture Estonia's Saaremaa and/or Hiiumaa Islands, Sweden's Gotland Island or Finland's Lland Archipelago, Russia could extend its A2AD umbrella over the Baltics without setting foot on the Baltic mainland, effectively cutting the Baltics off from NATO. NATO's access would then be limited to the small and highly-contested Suwalki Gap connecting Poland and Lithuania. The second display shows the notional A2AD coverage Russia could have if it set up two additional S-300s and a Klub ASM on Saaremaa and Hiiumaa.

Current BordersCaptured Estonian Islands



Background Map Source: Google Maps